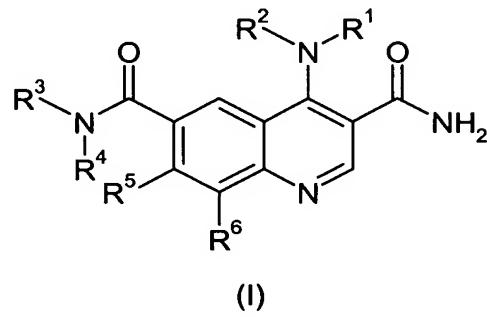


Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

What is claimed is:

1. (Currently Amended) A compound of formula (I) or a pharmaceutically acceptable salt thereof:



wherein:

R¹ is

Aryl optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkoxy, halogen, -CN, C₁₋₆ alkyl optionally substituted by one or more halogens, -OH, and C₁₋₆ alkylCO;

Heteroaryl optionally substituted by C₁₋₃ alkyl;

C₃₋₇ cycloalkyl;

Heterocyclyl; or

Aryl fused to a heterocyclyl ring;

R² is hydrogen or C₁₋₆ alkyl;

R³ is

Hydrogen;

C₁₋₆ alkyl optionally substituted by one or more substituents selected from the group consisting of: heterocyclyl (itself optionally substituted by C₁₋₆ alkyl), R⁷R⁸NCO-, R⁹CONR¹⁰-, C₁₋₆ alkoxy, R¹¹R¹²N-, and C₁₋₃ alkyl sulfonyl;

C₃₋₇ cycloalkyl;

Aryl(CH₂)_m- wherein the aryl is optionally substituted by one or more substituents selected from the group consisting of: halogen and C₁₋₆ alkoxy;

Aryl fused to a heterocyclyl ring;

Aryl fused to a C₄₋₇ cycloalkyl wherein the cycloalkyl is optionally substituted by =O;

Heteroaryl(CH₂)_m- wherein the heteroaryl is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkyl, halogen and C₁₋₆ alkoxy; or

Heterocyclyl(CH₂)_m- wherein the heterocyclyl is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkylCO, C₁₋₆ alkyl;

R⁴ is hydrogen or C₁₋₆ alkyl;

R³ and R⁴ together with the nitrogen atom to which they are attached may form a heterocyclyl ring, which is optionally substituted by one or more

substituents selected from the group consisting of: C₁₋₆ alkylCO, C₁₋₆alkoxy, C₃₋₇cycloalkyl, OH, halogen, C₁₋₆ alkyl, -(CH₂)_mNR¹³R¹⁴, -(CH₂)_mCONR¹⁵R¹⁶, -(CH₂)_mNR¹⁷COR¹⁸, heteroaryl, heteroarylC₁₋₄alkyl, heteroarylCO, -CO₂C₁₋₆alkyl and C₁₋₆alkoxyC₁₋₄alkyl;

R⁵ is hydrogen or C₁₋₆ alkyl;

R⁶ is hydrogen, C₁₋₆ alkyl, C₁₋₆alkoxy, fluorine, chlorine, or bromine; ;

m is 0-6;

R⁷⁻¹⁸ all independently represent hydrogen, or C₁₋₆ alkyl;

R⁷ and R⁸ together with the nitrogen atom to which they are attached may form a heterocycl ring;

R¹¹ and R¹² together with the nitrogen atom to which they are attached may form a heterocycl ring; and

R¹³ and R¹⁴ together with the nitrogen atom to which they are attached may form a heterocycl ring.

2. (Currently Amended) A compound according to claim 1 wherein:

R¹ is

Aryl optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkoxy, halogen, -CN, C₁₋₆ alkyl optionally substituted by one or more halogens, -OH, and C₁₋₆ alkylCO;

Heteroaryl optionally substituted by C₁₋₃ alkyl;

C₃₋₇ cycloalkyl;

Heterocycl; or

Aryl fused to a heterocycl ring;

R² is hydrogen;

R³ is

Hydrogen;

C₁₋₆ alkyl optionally substituted by one or more substituents selected from the group consisting of: C₁₋₃ alkoxy and C₁₋₃ alkyl sulfonyl;

C₃₋₇ cycloalkyl;

Aryl(CH₂)_m- wherein the aryl is optionally substituted by one or more substituents selected from the group consisting of: halogen and C₁₋₃ alkoxy;

Aryl fused to a heterocycl ring;

Aryl fused to a C₄₋₇ cycloalkyl wherein the cycloalkyl is optionally substituted by =O;

Heteroaryl(CH₂)_m- wherein the heteroaryl is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkyl, halogen and C₁₋₆ alkoxy; or

Heterocycl(CH₂)_m- wherein the heterocycl is optionally substituted by C₁₋₆ alkyl;

R⁴ is hydrogen or C₁₋₆ alkyl;

R³ and R⁴ together with the nitrogen atom to which they are attached may form a heterocycl ring, which is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkylCO, halogen, C₁₋₆ alkyl, -(CH₂)_mNR¹³R¹⁴, -CO₂C₁₋₆alkyl and C₁₋₃alkoxyC₁₋₃alkyl;

R⁵ is hydrogen;

R⁶ is hydrogen or C₁₋₆ alkyl;

m is 0-6;

R¹³ and R¹⁴ are independently selected from C₁₋₆ alkyl.

3. (Currently Amended) A compound according to claim 1 or 2 wherein:

R¹ is selected from

Phenyl substituted by one or more substituents selected from the group consisting of: methoxy, halogen, methyl, trifluoromethyl, -OH and C₁₋₃ alkylCO;

Heteroaryl optionally substituted by methyl; and

Phenyl fused to a heterocycl ring.

4. (Currently Amended) A compound according to any of claims 1 to 3 wherein:

R³ is selected from:

Hydrogen;

C₁₋₄ alkyl optionally substituted by methoxy or methylsulfonyl;

C₄₋₆ cycloalkyl;

Phenyl substituted by one or more substituents selected from halogen or methoxy;

Phenyl fused to a 5 membered heterocycll ring containing 1 or 2 oxygen atoms;

Phenyl fused to a C₄₋₇ cycloalkyl, wherein the cycloalkyl is substituted by =O;

Heteroaryl(CH₂)_m- wherein the heteroaryl is optionally substituted by methyl, methoxy or halogen; and

Heterocycll(CH₂)_m- wherein the heterocycll contains either five or six atoms including one or two heteroatoms selected from nitrogen or oxygen and wherein the heterocycll is optionally substituted by C₁₋₂ alkyl.

5. (Currently Amended) A compound according to ~~any of~~ claims 1 to 3 wherein:

R³ and R⁴ together with the nitrogen atom to which they are attached may form a five or six membered heterocycll ring, which is optionally substituted by one or more substituents selected from the group consisting of: acetyl, fluoro, methyl, -N(CH₃)₂, -CO₂C₁₋₂alkyl and C₁₋₃alkoxyC₁₋₃alkyl.

6. (Currently Amended) A compound according to ~~any of~~ claims 1 to 5 wherein:

R⁵ represents hydrogen.

7. (Currently Amended) A compound according to ~~any of~~ claims 1 to 6 wherein:

R⁶ is methyl.

8. (Currently Amended) A compound according to ~~any of~~ claims 1 to 7 wherein:

R¹ is 2,3-dihydro-1-benzofuran-4-yl or 4-fluoro-3-(methyloxy)phenyl;

R² is hydrogen;

R³ is selected from:

C₁₋₄ alkyl optionally substituted by methoxy or methylsulphonyl;

Pyridyl(CH₂)_m-;

Methylpyrazolyl; and

Tetrahydropyranyl;

R⁴ is hydrogen or methyl;

R⁵ is hydrogen; and

R⁶ is methyl.

9. (Currently Amended) A compound according to ~~any of~~ claims 1 to 8 wherein:

R¹ is 2,3-dihydro-1-benzofuran-4-yl, 1-methyl-1H-indazol-6-yl or 4-fluoro-3-(methyloxy)phenyl;

R² is hydrogen;

~~In a preferred embodiment R³ and R⁴ together with the nitrogen atom to which they are attached form a morpholinyl, a 2,6-dimethyl-4-morpholinyl, a 3-(ethoxycarbonyl)-1-piperidinyl, a 4-(N,N-dimethylamino)1-piperidinyl, a 4-acetyl-1-piperazinyl, or a 4-[(2-methoxyethyl)-1-piperazinyl ring.~~

R⁵ is hydrogen; and

R⁶ is methyl.

10. (Currently Amended) A compound of formula (I) selected from the group consisting of:

4-{[3-(methoxy)phenyl]amino}-N⁶-phenyl-3,6-quinolinedicarboxamide,
4-{[3-(methoxy)phenyl]amino}-6-(4-morpholinylcarbonyl)-3-quinolinecarboxamide,
N⁶,N⁶-dimethyl-4-{[3-(methoxy)phenyl]amino}-3,6-quinolinedicarboxamide,
N⁶-1,3-benzothiazol-6-yl-4-{[3-(methoxy)phenyl]amino}-3,6-quinolinedicarboxamide,
N⁶-(1-methyl-1H-benzimidazol-5-yl)-4-{[3-(methoxy)phenyl]amino}-3,6-quinolinedicarboxamide,
4-{[3-(methoxy)phenyl]amino}-N⁶-3-pyridinyl-3,6-quinolinedicarboxamide,
N⁶-[3-(methoxy)phenyl]-4-{[3-(methoxy)phenyl]amino}-3,6-quinolinedicarboxamide,
N⁶-1,3-benzodioxol-5-yl-4-{[3-(methoxy)phenyl]amino}-3,6-quinolinedicarboxamide,
4-{[3-(methoxy)phenyl]amino}-N⁶-(3-oxo-2,3-dihydro-1H-inden-5-yl)-3,6-quinolinedicarboxamide,
4-{[3-(methoxy)phenyl]amino}-N⁶-[6-(methoxy)-3-pyridinyl]-3,6-quinolinedicarboxamide,
N⁶-(4-chlorophenyl)-4-{[3-(methoxy)phenyl]amino}-3,6-quinolinedicarboxamide,
4-{[3-(methoxy)phenyl]amino}-6-(1-piperidinylcarbonyl)-3-quinolinecarboxamide,

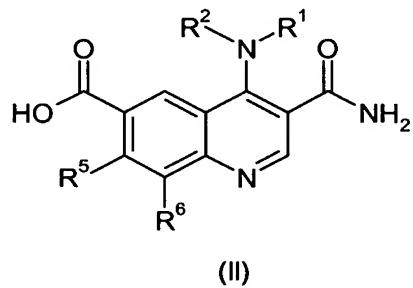
4-{{3-(methyloxy)phenyl]amino}-N⁶-(1,3-thiazol-2-ylmethyl)-3,6-quinolinedicarboxamide,
N⁶-(1,3-dihydro-2-benzofuran-5-yl)-4-{{3-(methyloxy)phenyl]amino}-3,6-quinolinedicarboxamide,
N⁶-[(3-methyl-5-isoxazolyl)methyl]-4-{{3-(methyloxy)phenyl]amino}-3,6-quinolinedicarboxamide,
N⁶-[(5-chloro-2-pyridinyl)methyl]-4-{{3-(methyloxy)phenyl]amino}-3,6-quinolinedicarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-N~6~,8-dimethyl-N~6~-[2-(methyloxy)ethyl]-3,6-quinolinedicarboxamide
4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-6-(4-morpholinylcarbonyl)-3-quinolinecarboxamide,
8-methyl-4-[(1-methyl-1H-indazol-6-yl)amino]-6-(4-morpholinylcarbonyl)-3-quinolinecarboxamide,
4-{{4-fluoro-3-(methyloxy)phenyl]amino}-8-methyl-6-(4-morpholinylcarbonyl)-3-quinolinecarboxamide,
4-{{4-fluoro-3-(methyloxy)phenyl]amino}-N~6~,8-dimethyl-N~6~-[2-(methyloxy)ethyl]-3,6-quinolinedicarboxamide,
4-{{4-fluoro-3-(methyloxy)phenyl]amino}-N~6~,8-dimethyl-N~6~-[(2-methylsulfonyl)ethyl]-3,6-quinolinedicarboxamide,
6-[(4-acetyl-1-piperazinyl)carbonyl]-4-{{4-fluoro-3-(methyloxy)phenyl]amino}-8-methyl-3-quinolinecarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-N~6~,N~6~,8-trimethyl-3,6-quinolinedicarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-6-({{4-[2-(methyloxy)ethyl]-1-piperazinyl}carbonyl)-3-quinolinecarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-6-[(2,6-dimethyl-4-morpholinyl)carbonyl]-8-methyl-3-quinolinecarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-6-{{4-(dimethylamino)-1-piperidinyl}carbonyl}-8-methyl-3-quinolinecarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-N~6~,8-dimethyl-N~6~-(4-pyridinylmethyl)-3,6-quinolinedicarboxamide,

6-[(4-acetyl-1-piperazinyl)carbonyl]-4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-3-quinolinecarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-N~6~-4-pyridinyl-3,6-quinolinedicarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-N~6~-tetrahydro-2H-pyran-4-yl)-3,6-quinolinedicarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-N~6~-(1-methyl-1H-pyrazol-5-yl)-3,6-quinolinedicarboxamide₁,

and pharmaceutically acceptable salts thereof.

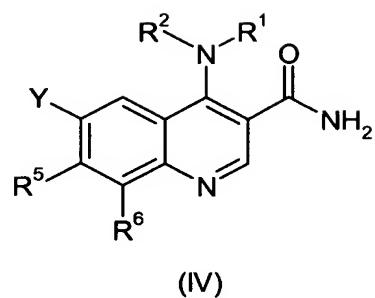
11. (Currently Amended) A process for the preparataion of a compound of formula (I) and pharmaceutically acceptable salts thereof as claimed in ~~any of~~ claims 1 to 10 which comprises:

(A) reacting a compound of formula (II)



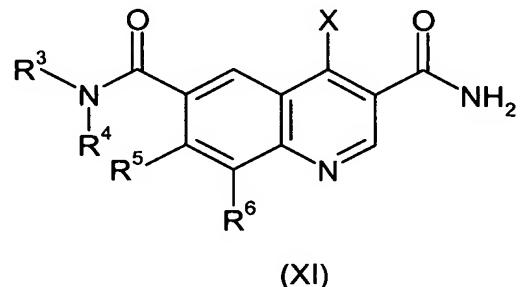
wherein R¹, R², R⁵ and R⁶ are as defined above with a suitable amide coupling agent followed by treatment with an amine of formula R³R⁴NH wherein R³ and R⁴ are as defined above; or

(B) reacting a compound of formula (IV)



wherein R¹, R², R⁵ and R⁶ are as defined above and Y represents chlorine, bromine or iodine, with carbon monoxide and an amine of formula R³R⁴NH, wherein R³ and R⁴ are as defined above, in a suitable solvent such as toluene, at a suitable temperature such as the reflux temperature of the solvent, in the presence of a suitable catalyst, such as a palladium catalyst, e.g. dichlorobis(triphenylphosphine)palladium(II) and a suitable base, such as triethylamine; or

(C) reacting a compound of formula (XI)



wherein R³, R⁴, R⁵, R⁶ are as defined above and X is halogen, by treatment with an amine of formula R¹R²NH, wherein R¹ and R² are as defined above.

(D) interconversion of a compound of formula (I) into another compound of formula (I); or

(E) deprotecting a protected derivative of a compound of formula (I).

12. – 14. (Canceled).

15. (Currently Amended) A pharmaceutical composition which comprises a compound according to ~~any of~~ claims 1 to 10 optionally with a pharmaceutically acceptable carrier or excipient.
16. (Previously presented) A pharmaceutical composition according to claim 15 which is suitable for inhaled administration.
17. (Previously presented) A pharmaceutical composition according to claim 15 which is suitable for oral administration.
18. (New) A method of inhibiting PDE4, comprising the administration of the compound of claim 1 or a pharmaceutically acceptable salt thereof.
19. (New) A method of treating inflammatory and allergic diseases, comprising the step of administering the compound of claim 1 or a pharmaceutically acceptable salt thereof.